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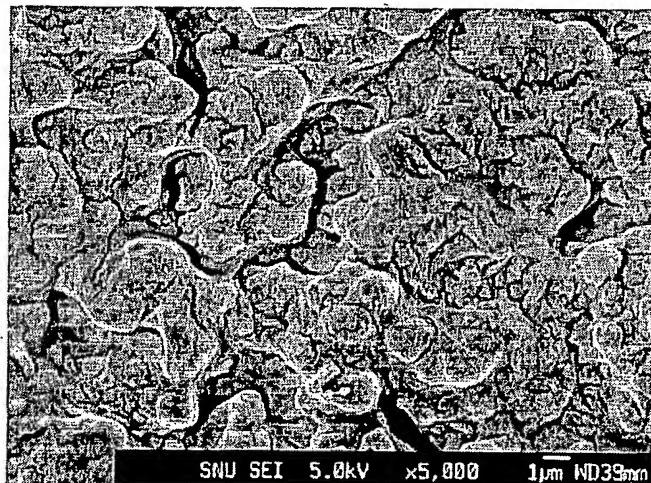
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- (54) Title: **POROUS FILM TYPE SOLVENT-FREE POLYMER ELECTROLYTE FILLED WITH OLIGOMER/PREPOLYMER ELECTROLYTE AND SECONDARY BATTERY EMPLOYING THE SAME**



(57) Abstract: Provided are a solvent-free polymer electrolyte and a secondary battery employing the same. The solvent-free polymer electrolyte includes: a porous film including a first polymer and a second oligomer, the first polymer being at least one selected from the group consisting of poly(vinylidene fluoride-co-hexafluoropropylene) copolymers, polyvinylidenefluorides, polymethylmethacrylates, polyacrylonitriles, polyethyleneoxides, and celluloses having a polyether chain and the second oligomer being at least one selected from the group consisting of poly(ethylene oxide-co-ethylene carbonate) copolymers with at least one terminal groups substituted by a halogen atom and polyethyleneglycols with at least one terminal groups substituted by a halogen atom; and an electrolyte present in the pores of the porous film and including the second oligomer and a

lithium salt. Since the solvent-free polymer electrolyte contains no liquid organic electrolyte, it is not accompanied by problems caused by leakage or evaporation of an organic solvent, unlike a gel-type polymer electrolyte. Furthermore, the solvent-free polymer electrolyte has enhanced ionic conductivity as compared to a conventional solvent-free polymer electrolyte.